

July 10, 2017

VIA ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Accelerating Broadband Deployment*, GN Docket No. 17-83; *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-84; *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, WT Docket No. 17-79; *Revising the Historic Preservation Review Process for Wireless Facility Deployments*, WT Docket No. 15-180; *Lifeline and Link Up Reform and Modernization*, WC Docket No. 11-42; *Telecommunications Carriers Eligible for Universal Service Support*, WC Docket No. 09-197; *Connect America Fund*, WC Docket No. 10-90; *Comprehensive Review of Universal Service Fund Management, Administration, and Oversight*, WC Docket No. 05-195; *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45; *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6; *Rural Health Care Support Mechanism*, WC Docket No. 02-60; *Lifeline and Link-Up*, WC Docket No. 03-109; *Changes to the Board of Directors for the National Exchange Carrier Association*, CC Docket No. 97-21

Dear Ms. Dortch:

On July 6, 2017, the undersigned and Craig Wigginton, Deloitte & Touche LLP U.S. Vice Chairman and Global Telecommunications Sector Leader; Dan Helfrich, Federal Consulting Leader; Dan Littmann, Telecom Consulting Leader; and Brett Haan, Principal, met with Chairman Ajit Pai and his wireless legal advisor Rachael Bender to review Deloitte's new white paper, *Communications infrastructure upgrade: The Need for Deep Fiber*.¹ Deloitte's white paper notes that *deep fiber* – deployed closer to the customer – is the centerpiece of advancement to the next generation of wireless technology, 5G. Not only is increased fiber investment necessary to support densification of wireless networks through small cells – an expected feature of 5G networks – but more fiber deployment is critical to provide greater competitive choice to residential and business customers.

¹ Deloitte LLP, *Communications infrastructure upgrade: The Need for Deep Fiber* (2017), <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-tmt-5GReady-the-need-for-deep-fiber-pov.pdf> (“Paper”).

Deloitte notes that the digital divide has actually widened in recent years, due to the lack of sufficient fiber investment and competitive broadband offerings in rural and underserved communities, as wireline carriers lose market share in suburban and urban areas to cable and other providers. To create a more favorable environment for fiber infrastructure investment, carriers should be able to transition to all-IP networks as soon as possible. Carriers will gain efficiencies from deploying new IP networking architectures, which can provide the scale and elasticity to support 5G networks.² The cost to maintain legacy TDM networks contributes to very high OPEX costs, relative to CAPEX, often preventing carriers from adequately investing in fiber for more efficient, less costly IP networks. The requirement to operate and maintain legacy networks and systems limits carriers' ability to take advantage of the savings and shift capital to deep fiber deployment.³

Deloitte's paper lists a number of regulations, both federal and state, that prevent IP migration.⁴ Because the Commission has proposed to eliminate several of these regulations to remove barriers to wireline infrastructure deployment, and seeks comments on additional measures that could be taken to encourage broadband deployment, Deloitte submits its paper to the record of the wireline infrastructure proceeding. Because of the critical role deep fiber will play in unlocking the full potential of 5G, Deloitte also submits the paper to the record of the wireless infrastructure proceeding, and to the Broadband Deployment Advisory Committee.

Lastly, because the Universal Service Fund (USF) is an existing source for investment in fiber, Deloitte notes in the paper that the fund would benefit from reformed operational efficiency, and that in turn would help implement a coordinated deep fiber program that can drive network densification and greater competition.⁵ Reforming the internal operations of the Universal Service Administration Corporation is warranted to meet broader goals of expanding fiber infrastructure and addressing rural Internet access.⁶

Because Deloitte's paper proposes that the Commission consider dispersing USF support more efficiently to coordinate and encourage deep fiber programs, Deloitte also submits its *Communications infrastructure upgrade: The Need for Deep Fiber* paper to the various open dockets on USAC reform.⁷

² See Paper at 5.

³ *Id.*

⁴ See *Id.*, Exhibit 10, at 20.

⁵ *Id.* at 5, 21.

⁶ *Id.* at 6, 21.

⁷ *Lifeline and Link Up Reform and Modernization*, WC Docket No. 11-42; *Telecommunications Carriers Eligible for Universal Service Support*, WC Docket No. 09-197; *Connect America Fund*, WC Docket No. 10-90; *Comprehensive Review of Universal Service Fund Management, Administration, and Oversight*, WC Docket No. 05-195; *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45; *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6; *Rural Health Care Support Mechanism*, WC Docket No. 02-60; *Lifeline*

Respectfully Submitted,



Patricia J. Paoletta
Counsel to Deloitte LLP

Attached: *Communications infrastructure upgrade: The Need for Deep Fiber*

cc: Nicholas Degani
Rachael Bender
Jay Schwarz
Kristine Fargotstein
Daudeline Meme
Claude Aiken
Erin McGrath
Amy Bender
Kris Montieth
Madeleine Findley
Donald Stockdale
Nese Guendelsberger
Brian Hurley